



100-1010-101
 QUALITY CONTROL BOARD
 LOS ANGELES REGION

August 29, 2000

Mr. Jimmie Woo
 Los Angeles Regional Water Quality Control Board
 320 West 4th Street, Suite 200
 Los Angeles, California 90013

Subject: Groundwater Monitoring Report, 2nd Quarter 2000
 Los Nietos Business Center
 Santa Fe Springs, California
 Versar Project No. 4176-040
 SLIC Case No. 883

UNIT _____
 USE NO. _____
 DATE _____
 TAFF _____
REPORT TYPE:
 BAR _____
 WORK PLAN _____
 MONITORING _____
 OTHER _____
 DATE REV'D. _____
 OFF INITIAL _____

Dear Mr. Woo:

Versar, Inc. (Versar) is pleased to submit this quarterly groundwater monitoring report (2nd quarter 2000) for the Los Nietos Business Center located at 9120 - 9169 South Norwalk Boulevard, and 11924 - 11933 East Los Nietos Road, in Santa Fe Springs, California (the Site). The location of the Site is depicted on Figure 1 (Attachment 1). The quarterly monitoring activities were performed as requested in the Los Angeles Regional Water Quality Control Board (RWQCB) letters dated November 4, 1999, December 16, 1999, and March 3, 2000.

Background

The Site is currently developed with four industrial warehouse buildings totaling 212,716 square feet of rentable space (see Figure 2, Attachment 1). Between 1924 and 1986, the Site was occupied and owned by Armco National Product Systems (Armco). Armco utilized the Site for manufacturing and testing down-hole crude oil production equipment. Prior to redevelopment of the Site in 1988, soils were remediated for residual total petroleum hydrocarbons (TPH) and metals. The remedial activities consisted of excavating approximately 10,000 cubic yards of soil for off-site disposal. The RWQCB granted no further action for soils in a letter dated December 16, 1999.

Six groundwater monitoring wells currently exist at the Site. Five of the wells (MW-1 through MW-5) were installed by Applied Geosciences in 1995. The sixth well (MW-6) was installed by Clayton Environmental Consultants (Clayton) in 1999. Groundwater samples were originally collected by Fugro West in 1996. Clayton performed three groundwater sampling events in 1999. Historical

Qms600.wpd/4176-040

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Mr. Jimmie Woo

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groundwater results from the Site monitoring wells identified volatile organic compounds (VOCs) and metals above maximum contaminant levels (MCLs) for drinking water. Research performed by Clayton (September 29, 1999), and corroborated by Versar in January, 2000, identified numerous off-site (upgradient) sources of VOCs and metals in groundwater. Groundwater flow patterns and concentration gradients support on-site migration of VOCs and metals from off-site sources. In a letter dated November 4, 1999, the RWQCB acknowledged the likelihood that chemicals of concern are migrating on-site from off-site sources, but requested three additional quarters of groundwater monitoring to establish groundwater trends beneath the Site. The first of the three monitoring events was performed by Clayton in December 1999. The second monitoring event was performed by Versar, the results of which are presented in Versar's June 16, 2000 letter report. The monitoring activities presented herein represents the third and final requested monitoring event.

Scope of Work

The 2nd quarter 2000 monitoring event was performed by Versar on June 28, 2000. The scope of work for the 2nd quarter 2000 monitoring activities consisted of the following for each monitoring well: 1) collection of a depth to water measurement for determining the groundwater flow direction beneath the Site; and 2) collection of a groundwater sample for VOC and metals analyses. The methodology used for groundwater sampling and analysis is described in Attachment 2 to this letter report. Field measurements collected during monitoring well sampling are included in Attachment 3.

Groundwater Flow

The groundwater flow patterns calculated from the depth to water measurements from the 2nd quarter 2000 monitoring event are depicted on Figure 3 (Attachment 1). Groundwater elevation data is presented in Table 1 (Attachment 1). As shown on Figure 3, the groundwater flow direction during this monitoring event was to the south/southwest, which is consistent with the 1st quarter 2000 monitoring event. Groundwater elevations increased nearly five feet between the 1st and 2nd quarters of 2000.

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Groundwater Analytical Results

Groundwater analytical results from the 2nd quarter 2000 monitoring event, along with historical analytical results, are tabulated in Tables 2 and 3 (Attachment 1). Table 2 presents current and historical groundwater analytical results for VOCs. Table 3 presents current and historical groundwater analytical results for metals. Laboratory analytical data sheets for the 2nd quarter 2000 monitoring event are included in Attachment 4. Per your request, isocentration contours for tetrachloroethene (PCE), trichloroethene (TCE), total chromium, and hexavalent chromium are depicted on Figures 4, 5, 6, and 7, respectively.

As indicated in Table 2, low levels of VOCs are present in groundwater, which is consistent with historical analytical results. Select VOCs are present above the California Maximum Contaminant Levels (MCLs) for drinking water. As depicted on Figures 4 and 5, the data indicates that PCE and TCE are migrating on-site from one or more off-site sources. PCE appears to be migrating onto the Site from the northeast, while TCE appears to be migrating onto the Site from the east. This is consistent with historical research performed for off-site releases located upgradient of the Site, as described in Clayton's September 29, 1999 letter. The identified release sites include Phibro Tech, Pilot Chemical, Techni Braze, Burdette Oxygen/Liquid Air, and the former Diversey Wyandotte.

As indicated in Table 3, various metals were identified in the 2nd quarter 2000 groundwater samples. With the exception of total chromium, hexavalent chromium, and cadmium, the current analytical results are below California Maximum Contaminant Levels (MCLs) for drinking water. As depicted on Figures 6 and 7, the data indicates total chromium and hexavalent chromium are migrating on-site from one or more off-site sources. Versar's historical research identified elevated concentrations of total chromium in groundwater at the Phibro Tech facility, located northeast (upgradient) from the Site. A 1996 groundwater sample from the Phibro Tech facility identified chromium at a concentration of 50 milligrams per liter (mg/l), which significantly exceeds concentrations identified on-site.



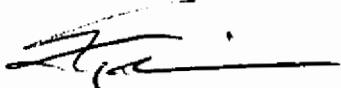
Mr. Jimmie Woo
August 29, 2000
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Closing

Based on the groundwater analytical results collected to date, it is Versar's opinion that VOCs and metals are migrating on-site from one or more off-site sources, and the concentrations identified in groundwater do not pose a threat to Site users under a commercial/industrial setting. This opinion is supported by data obtained from Site investigative and monitoring activities, and data obtained from the numerous off-site industrial properties. All groundwater closure requirements set forth in the RWQCB letters for the Site have been completed. The additional groundwater monitoring data has established a consistent groundwater plume trend beneath the Site.

If you have any questions regarding the information presented herein, please call Mr. Scott Allin at (916) 863-9325.

Sincerely,
Versar, Inc.

A handwritten signature in black ink, appearing to read "Scott Allin". It is written in a cursive style with a horizontal line underneath.

Scott Allin, R.E.A.
Senior Program Manager

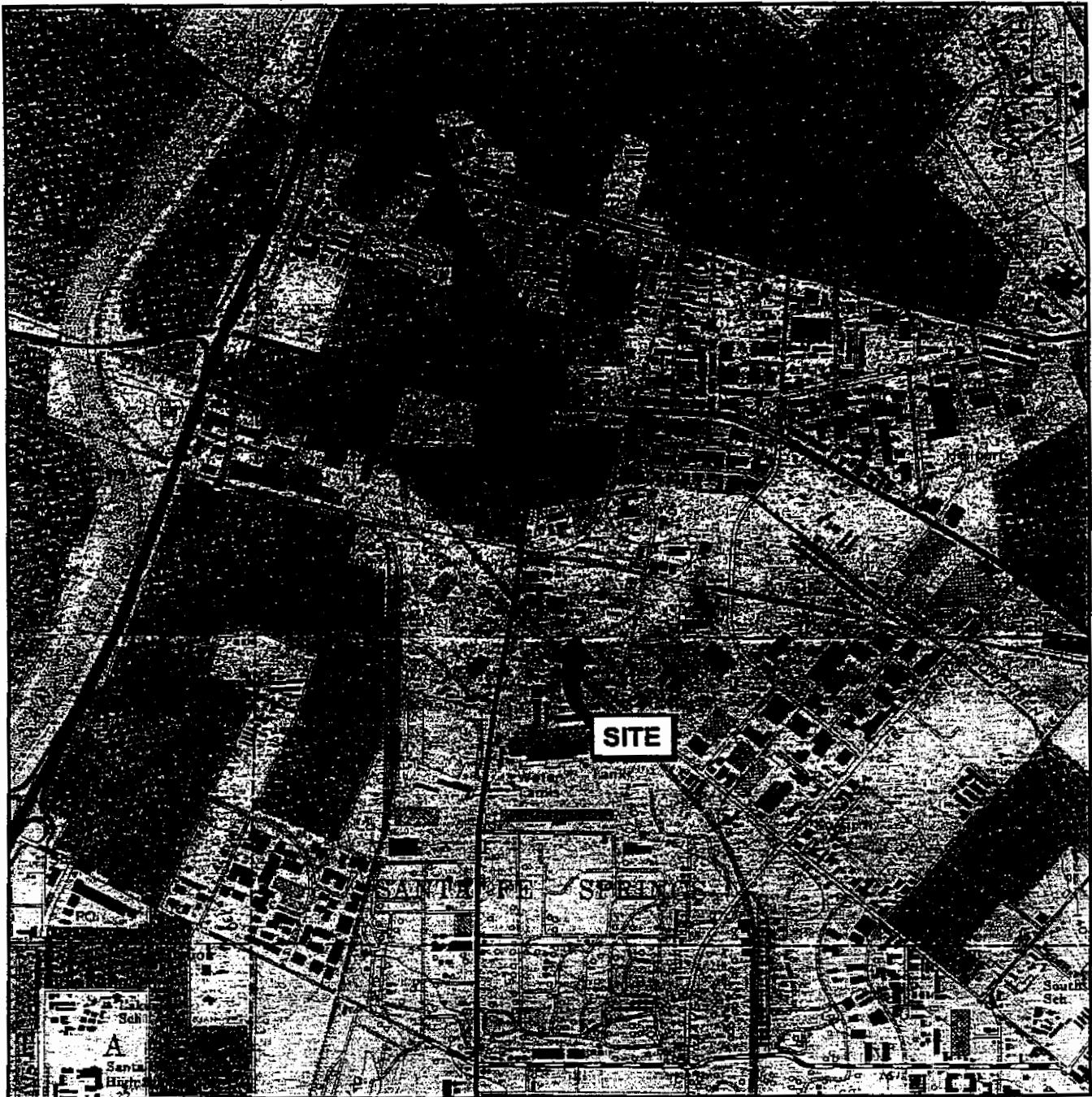
Tim Berger, R.G. #5225
Supervising Geologist

cc: Steve Campbell (AMB Property Corporation)

- Attachment 1 - Figures and Tables
- Attachment 2 - Monitoring Methodology
- Attachment 3 - Monitoring Field Measurements
- Attachment 4 - Groundwater Analytical Results

ATTACHMENT 1

Figures and Tables



Source: USGS 7.5 Minute Series Whittier, California Quadrangle, 1965 Photorevised 1981.



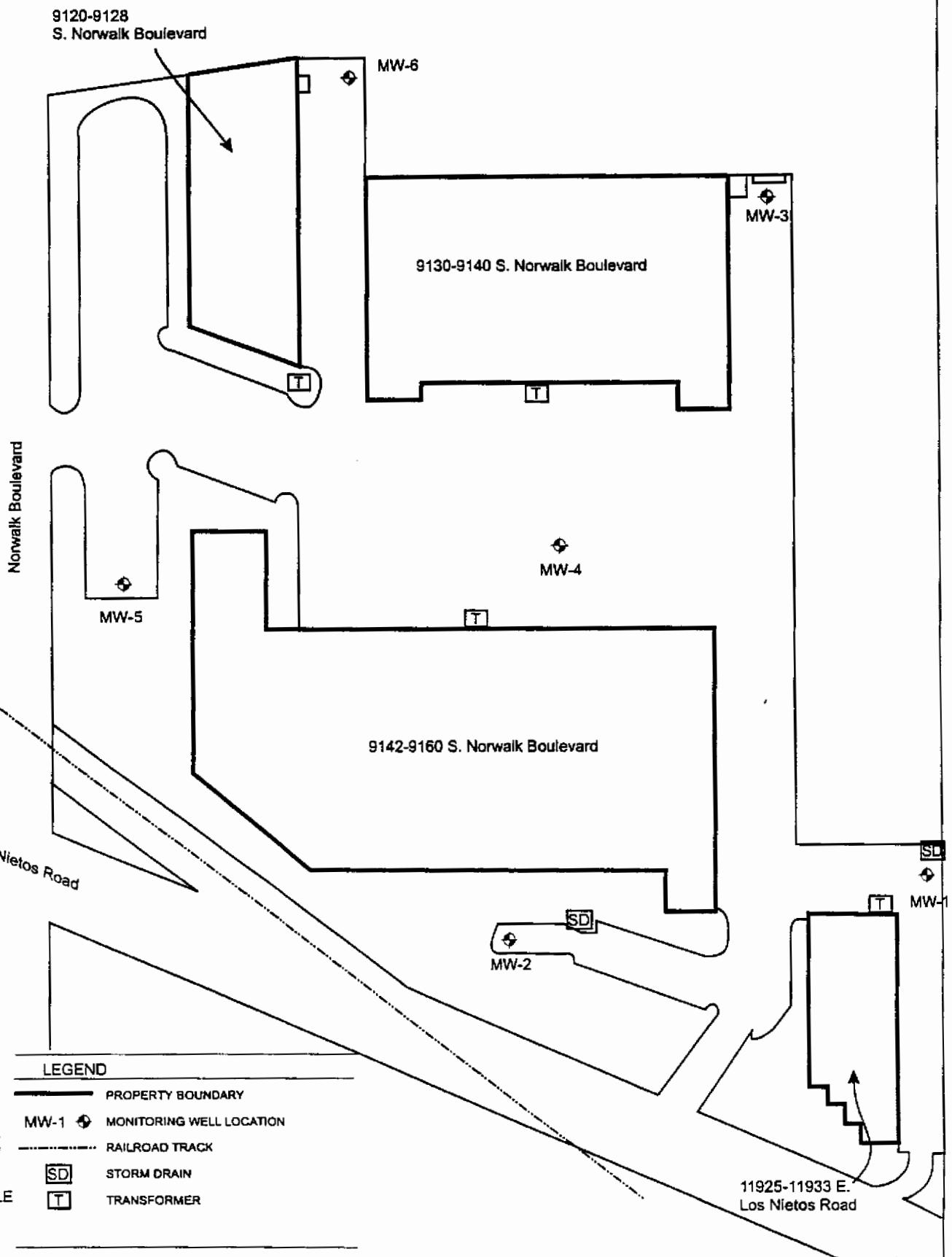
0' SCALE 2000'

Dr. By: AEC
Date: 10/29/99
Versar Project No.: 4176-040

Versar^{nc}
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SITE LOCATION MAP
Los Nietos Business Center
9120-9160 South Norwalk Boulevard
Santa Fe Springs, California

Figure
1



Dr. By: AEC

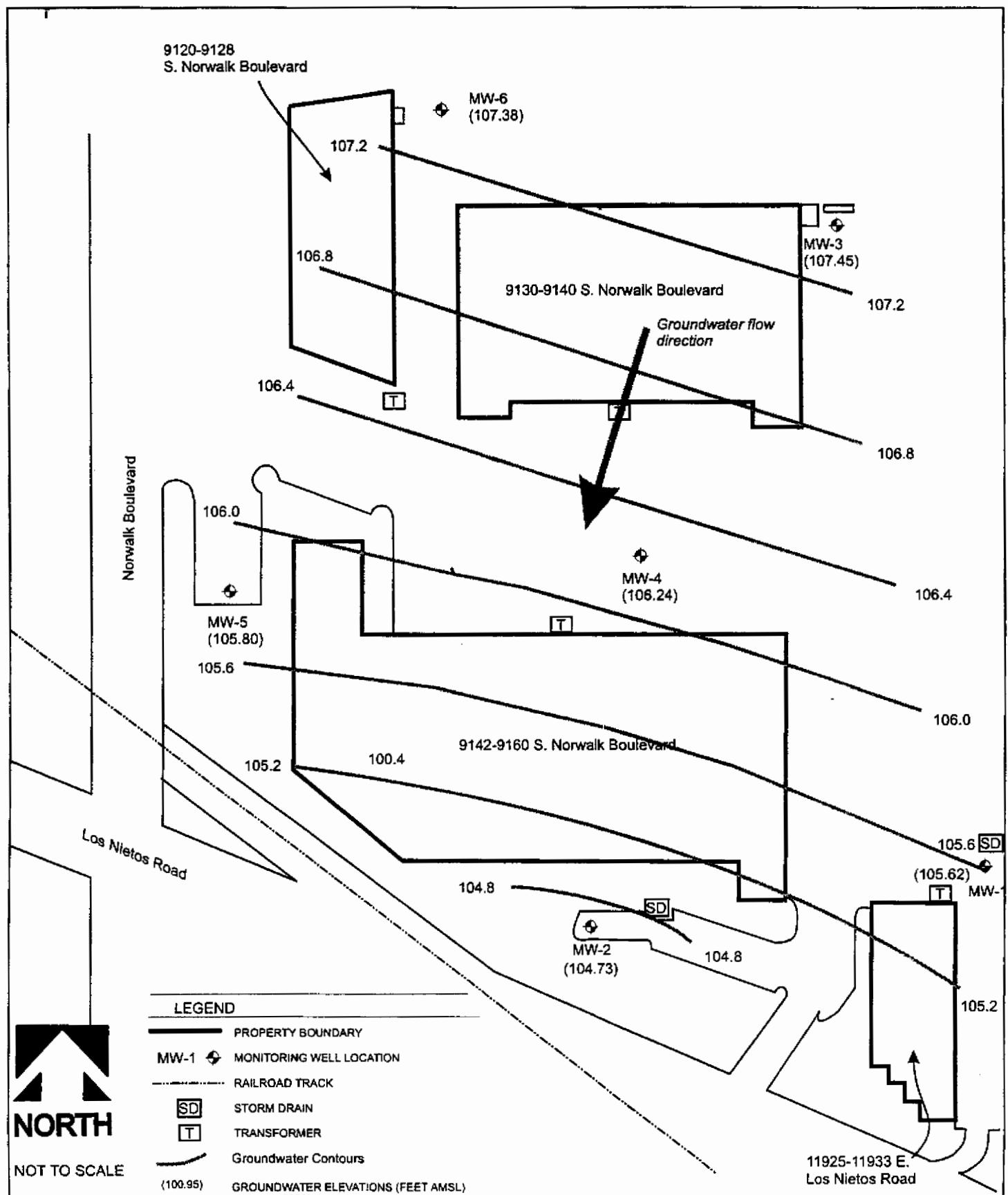
Date: 11/08/99

Versar Project No.: 4176-040

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SITE LAYOUT MAP
Los Nietos Business Center
9120-9160 South Norwalk Boulevard
Santa Fe Springs, California

**Figure
2**

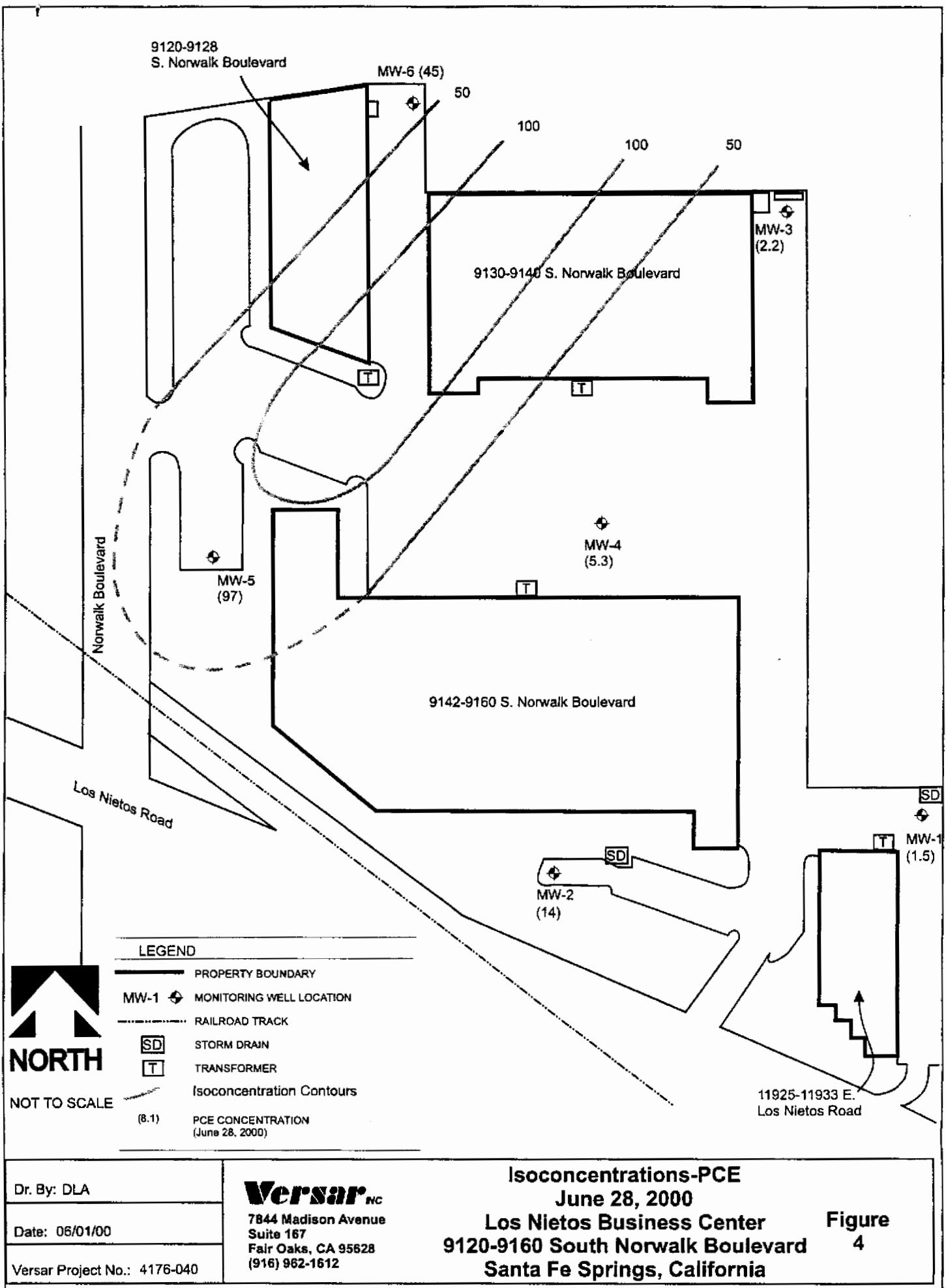


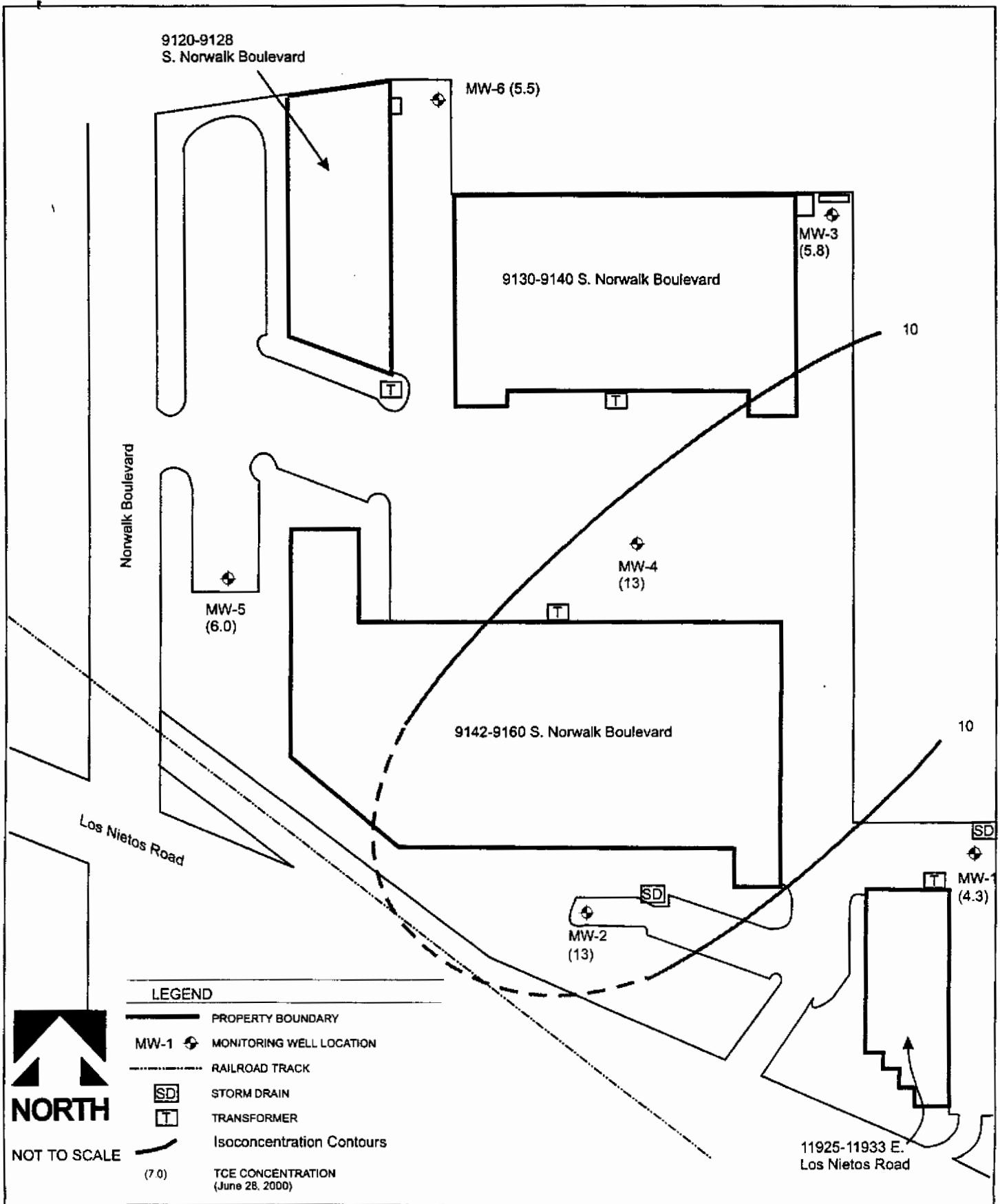
Dr. By: AEC
Date: 06/01/00
Versar Project No.: 4176-040

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**Groundwater Elevation Contours
June 28, 2000
Los Nietos Business Center
9120-9160 South Norwalk Boulevard
Santa Fe Springs, California**

**Figure
3**



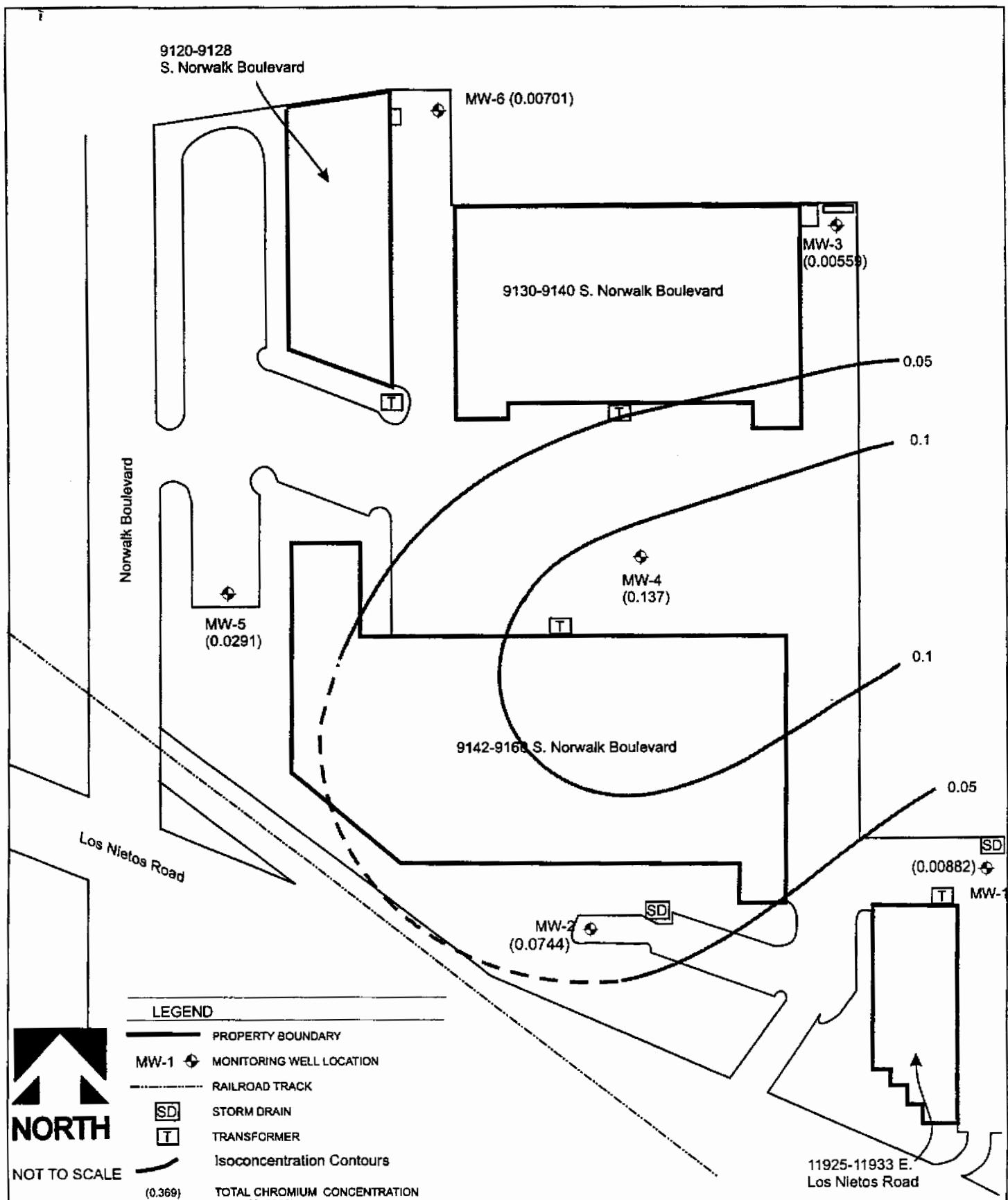


Dr. By: DLA
Date: 06/01/00
Versar Project No.: 4176-040

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Isoconcentrations-TCE
June 28, 2000
Los Nietos Business Center
9120-9160 South Norwalk Boulevard
Santa Fe Springs, California

Figure
5



Dr. By: DLA

Date: 06/01/00

Versar Project No.: 4176-040

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Isoconcentrations-Total Chromium
June 28, 2000
Los Nietos Business Center
9120-9160 South Norwalk Boulevard
Santa Fe Springs, California

Figure
6

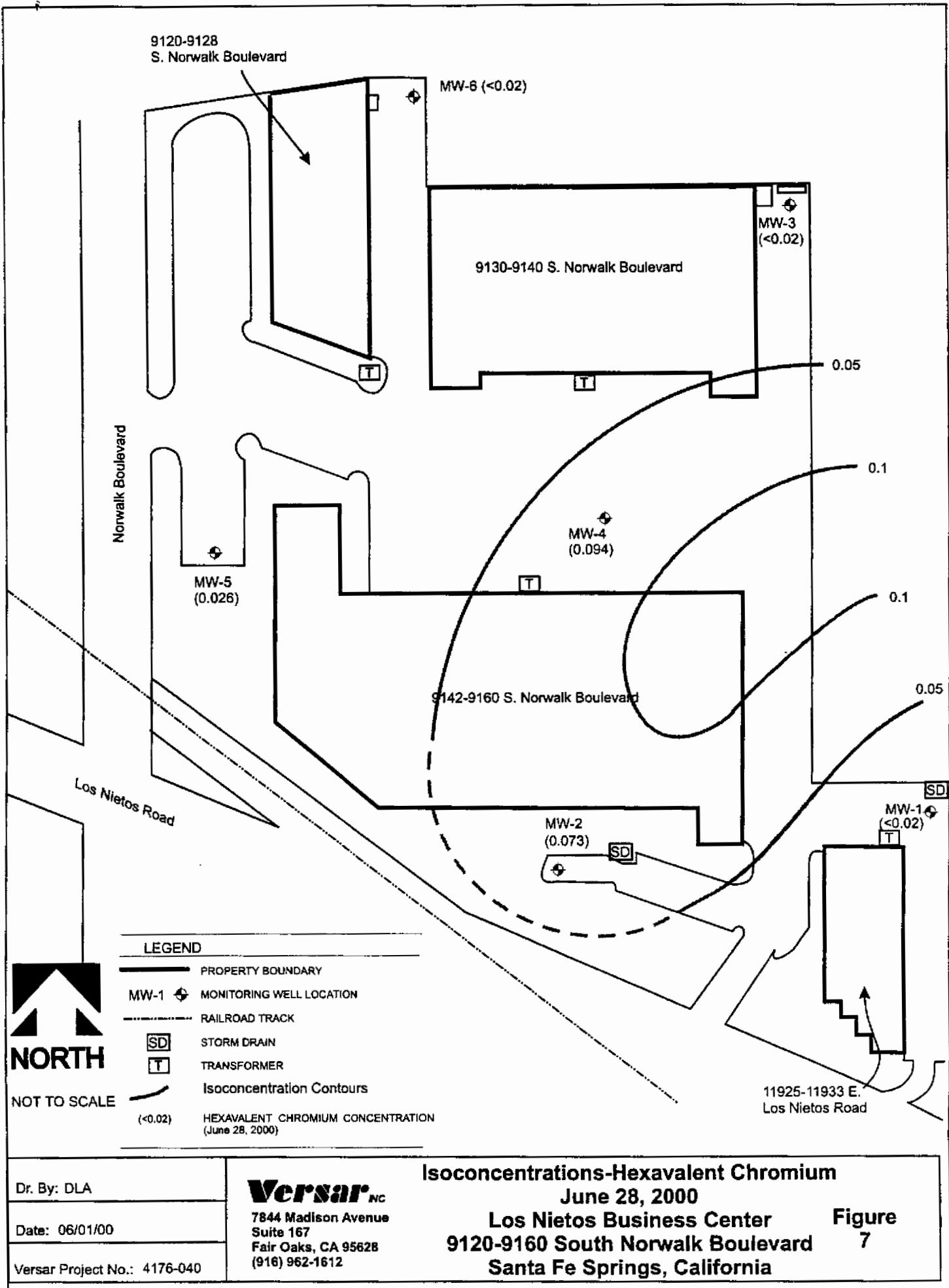


Table 1
Groundwater Elevation Data
Los Nietos Business Center
Santa Fe Springs, California

		Groundwater Monitoring Well						Groundwater Flow direction
		MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	
Well casing elevation (feet amsl)		150.42	153.99	149.98	149.94	155.22	156.03	---
Total Depth of Well		68.45	66.25	68.15	68.20	65.95	47.85	
March 22, 2000	Depth to groundwater (feet toc) Groundwater elevation (feet amsl)	49.45 100.97	54.05 99.94	47.25 102.73	48.45 101.49	54.27 100.95	53.55 102.48	South/Southwest
June 28, 2000	Depth to groundwater (feet toc) Groundwater elevation (feet amsl)	44.80 105.62	49.26 104.73	42.53 107.45	43.70 106.24	49.42 105.80	48.65 107.38	South/Southwest
	Change from previous elevation	4.65	4.79	4.72	4.75	4.85	4.90	

Notes and Abbreviations:

ft/ft = feet per foot

amsl = above mean sea level

toc = top of casing

Table 2
Groundwater Analytical Results, Volatile Organic Compounds
Los Nietos Business Center
Santa Fe Springs, California

Monitoring Well No.	Date	Chemicals of Concern (Micrograms Per Liter)										
		CTC	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	trans-1,2-DCE	cis-1,2-DCE	1,2-DCP	PCE	1,1,1-TCA	TCE
MW-1	Apr-96	ND	0.61	21	ND	11	ND	ND	ND	6.3	4.2	32
	Jul-99	ND	ND	2.6	ND	18.6	ND	ND	--	11.8	ND	11.3
	Sep-99	ND	1.4	3.4	ND	25.6	ND	ND	ND	11.4	1.9	10.9
	Dec-99	ND	12	61	ND	1,030	ND	ND	12	172	ND	29
	Mar-00	0.59	1.7	7.4	0.53	81	ND	1.7	29	6.3	3.2	24
	Jun-00	ND	ND	ND	ND	4.9	ND	ND	ND	1.5	ND	4.3
MW-2	Apr-96	ND	0.91	ND	ND	1.1	ND	ND	--	15	ND	7.7
	Jul-99	ND	1.0	2.2	6.8	ND	ND	1.4	--	10.1	ND	5.5
	Sep-99	ND	ND	4.6	6.2	2.5	ND	2.3	--	15.9	ND	7.7
	Dec-99	1.2	7.3	11.4	13.8	6.9	ND	3.7	ND	15.4	ND	18.9
	Mar-00	2.2	11	4.9	4.1	2.9	ND	1.2	ND	15	ND	16
	Jun-00	ND	1.6	7.1	17	3.1	ND	2.9	ND	14	ND	13
MW-3	Apr-96	ND	ND	ND	ND	ND	ND	ND	--	1.4	ND	2.6
	Jul-99	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND
	Sep-99	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND
	Dec-99	ND	ND	3.8	ND	4.9	ND	ND	ND	2.3	ND	3.2
	Mar-00	ND	ND	1.6	ND	1.7	ND	ND	ND	1.6	ND	3.5
	Jun-00	ND	ND	2.7	0.52	3.2	ND	ND	ND	2.2	ND	5.8
MW-4	Apr-96	5.1	15	33	17	13	0.51	10	--	18	ND	74
	Jul-99	ND	2.4	3.0	ND	1.6	ND	ND	--	8.7	ND	12.2
	Sep-99	ND	4.4	4.3	3.9	3.1	ND	1.1	--	17.5	ND	13.2
	Dec-99	ND	7.2	4.7	2.3	3.2	ND	1.0	ND	11.1	ND	12.7
	Mar-00	0.58	4.8	3.5	1.8	3.6	ND	ND	ND	8.1	ND	12
	Jun-00	0.56	4.9	5.5	8.9	1.4	ND	1.5	ND	5.3	ND	13
MW-5	Apr-96	ND	0.76	ND	ND	ND	ND	ND	--	82	ND	78
	Jul-99	ND	ND	ND	ND	2.1	ND	ND	--	73.8	ND	5.0
	Sep-99	ND	ND	ND	ND	2.0	ND	ND	--	81.1	ND	4.8
	Dec-99	ND	ND	ND	ND	2.1	ND	ND	ND	89.5	--	8.3
	Mar-00	ND	ND	ND	ND	2.3	ND	ND	ND	91	ND	7.0
	Jun-00	ND	ND	ND	ND	3.0	ND	ND	ND	97	ND	6.0
MW-6	Sep-99	ND	ND	ND	ND	ND	1.9	ND	--	68.2	ND	6.9
	Dec-99	ND	ND	ND	ND	2.1	ND	ND	ND	70.3	ND	12.9
	Mar-00	ND	ND	ND	ND	2.1	ND	ND	ND	69	ND	9.5
	Jun-00	ND	ND	ND	ND	ND	ND	ND	ND	45	ND	5.5
Ca MCL		0.5	100	5	0.5	6.0	10	6.0	5.0	5.0	200	5.0

Notes and Abbreviations:

CTC - Carbon Tetrachloride.

1,1-DCE - 1,1-dichloroethene.

1,2-DCP - 1,2-dichloropropane.

TCE - trichloroethene.

1,1-DCA - 1,1-dichloroethane.

trans-1,1-DCE - trans-1,1-dichloroethene.

PCE - tetrachloroethene.

Ca MCL - California Maximum Contaminant Level.

1,2-DCA - 1,2-dichloroethane.

cis-1,2-DCE - cis-1,2-dichloroethene.

1,1,1-TCA - 1,1,1-trichloroethane.

-- = not analysed

ND - not detected at or above the methods reporting limit. VOCs not presented were below the laboratory reporting limits.

Table 3
Groundwater Analytical Results, Metals
Los Nietos Business Center
Santa Fe Springs, California

Monitoring Well No.	Date	Chemicals of Concern (Milligrams Per Liter)																	
		Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Ti	V	Zn	Cr+6
MW-1	Apr-96	ND	ND	0.2	ND	ND	0.047	ND	ND	ND	ND	ND	0.013	ND	ND	0.12	0.069	—	—
	Jul-99	ND	ND	0.051	ND	ND	ND	ND	ND	ND	ND	ND	0.015	ND	ND	ND	0.065	—	—
	Sep-99	ND	ND	0.058	ND	ND	ND	ND	ND	ND	ND	ND	0.014	0.068	ND	0.15	ND	0.055	—
	Dec-99	ND	ND	0.059	ND	0.021	ND	ND	ND	ND	ND	ND	0.017	ND	ND	ND	ND	ND	—
	Mar-00	ND	ND	0.0724	ND	ND	0.0242	ND	0.00949	ND	ND	ND	0.0128	ND	ND	ND	0.00778	0.0735	ND
	Jun-00	ND	ND	0.0672	ND	ND	0.00882	ND	ND	ND	ND	ND	0.0161	ND	ND	ND	0.0179	ND	—
MW-2	Apr-96	ND	ND	0.11	ND	ND	0.07	ND	ND	ND	0.0068	ND	ND	ND	ND	0.12	ND	—	—
	Jul-99	ND	ND	0.045	ND	ND	0.027	ND	ND	ND	ND	ND	0.018	ND	0.019	ND	0.103	—	—
	Sep-99	ND	ND	0.037	ND	ND	0.024	ND	ND	ND	ND	ND	0.071	ND	0.162	ND	0.096	—	—
	Dec-99	ND	ND	0.043	ND	ND	0.188	ND	0.02	ND	ND	ND	0.016	ND	ND	ND	0.015	—	—
	Mar-00	0.0167	ND	0.0872	ND	ND	0.369	ND	0.00743	ND	0.00167	ND	0.00526	ND	ND	0.00917	0.0546	0.33	—
	Jun-00	ND	ND	0.0492	ND	ND	0.0744	ND	ND	ND	ND	ND	0.0176	ND	ND	ND	0.0384	0.073	—
MW-3	Apr-96	ND	ND	0.094	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12	ND	—	—
	Jul-99	ND	ND	0.107	ND	ND	ND	ND	ND	ND	ND	ND	0.014	ND	ND	ND	0.091	—	—
	Sep-99	ND	ND	0.096	ND	ND	ND	ND	ND	ND	ND	ND	0.016	0.083	ND	0.176	ND	0.052	—
	Dec-99	ND	ND	0.072	ND	ND	0.011	ND	0.019	ND	ND	ND	0.012	ND	ND	ND	0.012	—	—
	Mar-00	ND	ND	0.0616	ND	ND	0.0161	ND	0.00517	ND	ND	ND	0.00559	ND	ND	ND	0.0485	ND	—
	Jun-00	ND	ND	0.0516	ND	ND	0.00559	ND	ND	ND	ND	ND	0.0262	ND	ND	ND	ND	ND	—
MW-4	Apr-96	ND	ND	0.096	ND	0.062	ND	0.062	ND	0.0016	ND	0.15	ND	0.064	ND	0.16	0.66	—	—
	Jul-99	ND	ND	0.057	ND	ND	0.036	ND	ND	ND	ND	0.014	0.015	ND	0.015	ND	0.097	—	—
	Sep-99	ND	ND	0.037	ND	ND	0.163	ND	0.16	ND	ND	0.02	0.056	ND	0.143	ND	0.231	—	—
	Dec-99	ND	ND	0.031	ND	ND	0.606	ND	0.02	0.009	ND	0.13	ND	ND	ND	ND	0.065	—	—
	Mar-00	ND	ND	0.0447	ND	0.00954	0.261	ND	0.0244	ND	ND	0.0180	ND	ND	ND	ND	0.124	0.23	—
	Jun-00	ND	ND	0.0355	ND	0.0101	0.137	ND	0.00782	ND	ND	0.0196	ND	ND	ND	ND	0.115	0.094	—
MW-5	Apr-96	ND	ND	0.062	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—
	Jul-99	ND	ND	0.047	ND	ND	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND	0.058	—	—
	Sep-99	ND	ND	0.058	ND	ND	0.013	ND	ND	ND	ND	0.014	0.065	ND	0.141	ND	ND	—	—
	Dec-99	ND	ND	0.044	ND	ND	ND	ND	0.008	ND	ND	0.013	0.013	ND	ND	ND	ND	—	—
	Mar-00	ND	ND	0.0521	ND	ND	0.0146	ND	0.00557	ND	ND	ND	ND	ND	ND	ND	0.0331	ND	—
	Jun-00	ND	ND	0.0491	ND	ND	0.0291	ND	ND	0.00184	ND	ND	0.0322	ND	ND	ND	0.0148	0.026	—
MW-6	Sep-99	ND	ND	0.04	ND	ND	ND	ND	ND	ND	0.016	0.056	ND	ND	0.128	ND	ND	—	—
	Dec-99	ND	ND	0.041	ND	ND	ND	ND	0.008	ND	ND	0.012	ND	ND	ND	ND	ND	—	—
	Mar-00	ND	ND	0.105	ND	ND	0.0158	ND	0.0119	ND	ND	0.00638	ND	ND	ND	0.0138	0.0976	ND	—
	Jun-00	ND	ND	0.0379	ND	ND	0.00701	ND	ND	ND	ND	0.0181	ND	ND	ND	ND	ND	ND	—
Ca MCL		0.006	0.05	1	0.004	0.005	0.05	--	1.0	0.015	0.002	--	0.1	0.05	0.1	0.002	--	--	0.05

Notes and Abbreviations:

Sb - Antimony	Ba - Beryllium	Co - Cobalt	Hg - Mercury	Ss - Selenium	V - Vanadium	ND - Not detected at or above the method reporting limits.
As - Arsenic	Cd - Cadmium	Cu - Copper	Mo - Molybdenum	Ag - Silver	Zn - Zinc	-- - Not analyzed or not available.
Ba - Barium	Cr - Chromium (tot.)	Pb - Lead	Ni - Nickel	Tl - Thallium	Cr+6 - Hexavalent Chromium	

ATTACHMENT 2

Monitoring Methodology

1.0 DECONTAMINATION PROCEDURES

The decontamination procedures for non-dedicated field equipment and well development/purging equipment are given below. These procedures are followed during all field activities.

- a. Non-dedicated well development, purging, and sampling equipment is carefully pre-cleaned prior to each use, as follows:
 - a. Carefully brush off any loose foreign debris with a soft bristle brush.
 - b. Rinse the equipment thoroughly in clean water.
 - c. Wash the equipment in a non-phosphate detergent bath.
 - d. Rinse thoroughly in clean water.
 - e. Rinse thoroughly with deionized water.
 - f. Air dry in a dust-free environment.
 - g. Store in unused plastic bags or other suitable cover until use.
2. Clean disposable gloves are worn by all field personnel when handling decontaminated equipment.

2.0 COLLECTION OF SAMPLES

2.1 Groundwater Sampling

Groundwater samples are collected for laboratory analysis using the procedures given below.

1. Open the well and measure the organic vapor concentration with a flame-ionization detector (FID) or photoionization detector (PID).
2. Measure the water levels (if any) in the well using a decontaminated measuring device. All measurements must be made to the nearest 0.01 foot, and measured relative to the top of the casing. Record the depth of the water in the field data sheets.
3. Inspect the disposable bailer to ensure that the bottom valve assembly is working correctly.

4. Begin purging the well by inserting a bailer into the PVC monitoring well casing and carefully lower it into the well. Take care to avoid agitating and aerating the fluid column in the well. If a centrifugal or submersible pump is used, begin by connecting new or dedicated polyethylene tubing to the pump intake and inserting the remaining tubing in the well so that water is drawn from within two feet of the static water level. The centrifugal pump should be placed a minimum of 10 feet downwind of well. Parameter samples can be collected from the sample port located at the pump discharge port. A steady pumping rate should be set that avoids excessive or rapid drawdown in the well.
5. Slowly withdraw the bailer and transfer the water samples to a sampling container.
6. Measure the temperature, pH, conductivity, and turbidity. Record these and all subsequent measurements in the field data sheets.
7. Continue purging the well (a minimum of three well volumes) until the temperature, pH, conductivity, and turbidity have stabilized, or the well is dry.
8. When the water has recovered to 80 percent of the original level, carefully lower a new disposable bailer into the well and recover groundwater samples.
9. Fill the appropriate sample containers by releasing water from the bailer via the bottom emptying device with a minimum of agitation. The most volatile parameters are collected first, proceeding to the least volatile parameters.
10. Place the purge water in a DOT-approved 55-gallon drums.

3.0 ANALYSIS OF SAMPLES

Samples are submitted to a California state-certified laboratory (Calscience Environmental Laboratories, Inc.) for analysis. Each groundwater sample was analyzed for VOCs by EPA method 8260B, metals by EPA Method 6000/7000 series, and hexavalent chromium by EPA Method 7196A.

4.0 SAMPLE HANDLING

4.1 Sample Containers, Preservation, and Holding Times

All samples are collected, placed in containers, preserved, and analyzed within the time constraints with applicable local, provincial, and federal procedures. All sample containers are precleaned in accordance with prescribed EPA methods. A custody seal is placed around all

sample container lids to prevent leaks and unauthorized tampering with individual samples following collection and prior to the time of analysis.

4.2 Sample Tracking and Management

All samples are tracked using a standard chain-of-custody form. The chain of custody record includes the following information:

1. Sample number
2. Signature of collector
3. Date and time of collection
4. Sample collection location
5. Sample type
6. Signature of persons involved in the chain-of-possession
7. Inclusive dates of possession
8. Analytical parameters
9. Pertinent field observations

The custody record is completed using waterproof ink. Corrections are made by drawing a line through, initialing the error, and then entering the correct information.

Custody of the samples begins at the time of sample collection and are maintained by the sampling team supervisor until samples are relinquished for shipment to the laboratory, or until samples are hand-delivered to the designated laboratory sample custodian. Partial sample sets being accumulated for hand-delivery to the laboratory are stored in coolers with chain-of-custody records sealed in plastic bags and placed in the cooler with the sample sets.

ATTACHMENT 3

Monitoring Field Measurements

MONITORING WELL DEVELOPMENT TABLE

Project Number:	00-481	Site Name:	Los Nietos			
Well Number:	MW-1	Date(s) Developed:	6/28			
OVA - Ambient:	Development Method: Grav/for Siphon/strl Pump					
OVA - Vault:	Development Rate: 3 to 5 gpm					
OVA - Casing:	Developed By: KB					
Water Level - Initial:	44.8'	9:20	Free Product: none			
Water Level - Final:	45.9'	9:43	Sheen: none			
Well Depth:	36' 60'		Odor: none			
Well Diameter:	4 inches		Well Casing Volume: $15.2 \times .65 \times 3 = 30$			
Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (microhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
9:22	5	72.4	7.80	9.35	-	clear
9:24	10	72.2	7.67	9.66	-	low
9:26	15	72.7	7.54	9.77	-	cloudy
Stopped pumping - allowed to recharge						
9:35	20	73.3	7.62	9.80	-	low
9:38	25	72.6	7.77	9.83	-	low
9:40	30	73.3	7.57	9.73	-	low
at Sampling time						
1:55	—	74.2	7.70	10.11		clear

Field Notes: Sampled w/ disposable baster c 1:55 depth to water 44.70

MONITORING WELL DEVELOPMENT TABLE

Project Number:	OD-481	Site Name:	Los Rios			
Well Number:	MW 2	Date(s) Developed:	6/28			
OVA - Ambient:	Development Method: Gravifos Slurry, 100' Pump					
OVA - Vault:	Development Rate: 3 to 5 gpm					
OVA - Casing:	Developed By: KB					
Water Level - Initial:	49.26'	10:00	Free Product: none			
Water Level - Final:	49.9'	10:28	Sheen: none			
Well Depth:	~65		Odor: none			
Well Diameter:	4 inches		Well Casing Volume: $15.74 \times 6.5 \times 3 = 30$ gallons			
Time	Purge Water Removed (gall)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
10:02	5	73.6	7.84	10.06	—	clear
10:04	10	73.0	7.58	10.70	—	
10:06	15	72.9	7.91	10.70	—	↓
turned off pump to allow recharge						
10:20	20	73.6	7.55	11.05	—	low
10:22	25	74.1	7.96	11.11	—	↓
10:24	30	73.6	7.77	10.98	—	↓
Sampling						
2:15		74.2	7.78	11.0		clear

MONITORING WELL DEVELOPMENT TABLE

Project Number:	OU-401	Site Name:	Los Rios			
Well Number:	MW 3	Date(s) Developed:	6/29			
OVA - Ambient:	6 ft				Development Method:	6 m ft 55 pump
OVA - Vault:	6 ft				Development Rate:	3 to 5 gpm
OVA - Casing:	6 ft				Developed By:	K8
Water Level - Initial:	42.53 @ 8:40	Free Product:	none			
Water Level - Final:	48.0 @ 9:07	Sheen:	none			
Well Depth:	~(61)'	Odor:	none			
Well Diameter:	4 inches	Well Casing Volume:	17.478.65 x 3 = 35 gallons			
Time	Purge Water Removed (gall)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
8:40	2	73.0	7.20	8.13	—	clear
8:42	10	72.1	7.23	8.23	—	↓
8:45	15	72.0	7.22	8.25	—	↓
Pump off to allow for recharge						
8:50	25	71.8	7.34	8.41	—	low
8:55	35	71.3	7.40	8.66	—	low
at sample time						
1:35	—	73.0	7.33	8.70	—	clear

MONITORING WELL DEVELOPMENT TABLE

Project Number:	OD-401	Site Name:	Cerro Niefos			
Well Number:	MW4	Date(s) Developed:	6/28			
OVA - Ambient:	✓				Development Method:	Grafus SS pump
OVA - Vault:	✓				Development Rate:	3 to 5 gpm
OVA - Casing:	✓				Developed By:	ICB
Water Level - Initial:	43.7'	at	10:45	Free Product:		
Water Level - Final:	43.88	@	11:50	Sheen:		
Well Depth:	360	odor:				none
Well Diameter:	4 inches	Well Casing Volume: $16.3 \pi / 0.6 \times 3 = 32 \text{ gallons}$				
Time	Purge Water Removed (gall)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
10:47	5	75.8	7.5	11.77	—	clear
10:50	10	76.4	7.37	11.60	—	cloudy
10:52	15	76.6	7.24	11.61	—	cloudy
pump shut off to allow recharge						
11:02	25	78.0	7.30	11.81	—	clear
11:04	30	78.8	7.28	11.68	—	cloudy
11:05	33	78.2	7.21	11.53	—	cloudy
at Sampling						
2:35	—	75.3	7.31	11.48	—	clear

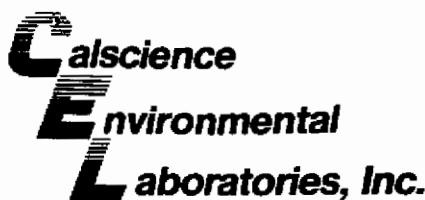
MONITORING WELL DEVELOPMENT TABLE

MONITORING WELL DEVELOPMENT TABLE

Project Number:	OD-481	Site Name:	Los Nietos			
Well Number:	MW6	Date(s) Developed:	6/28			
OVA - Ambient:		Development Method:	PVC Baiter			
OVA - Vault:		Development Rate:	.25 to .5 gpm			
OVA - Casing:		Developed By:	BS			
Water Level - Initial:	48.65 @ 7:20	Free Product:	none			
Water Level - Final:	48.8 @ 8:05	Sheen:	none			
Well Depth:	60	Odor:	none			
Well Diameter:	2 inches	Well Casing Volume:	$11.35 \times 16 \times 3 = 5.59 \text{ gallons}$			
Time	Purge Water Removed (gal)	Temperature (degrees Fahrenheit)	pH	Electrical Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Turbidity
7:35	1	75.6	7.14	8.04	—	clear
7:40	2	73.0	7.18	8.19	—	low
7:45	3	72.6	7.23	8.06	—	high
7:48	4	71.9	7.33	7.96	—	high
7:54	5	72.2	7.38	7.97	—	high
8:00	6	72.1	7.28	7.89	—	high
at Sample time						
1:20	—	75	7.90	7.95	—	cloudy
Field Notes:	depth to water at sampling = 48.60'					

ATTACHMENT 4

Groundwater Analytical Results



July 06, 2000

Kevin Sheridan
Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Subject: Calscience Work Order No.: **00-06-1033**
Client Reference: **Los Nietos Business Center**

Dear Client:

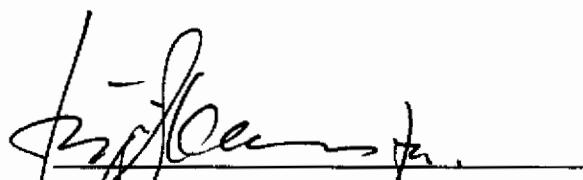
Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 06/28/00 and analyzed in accordance with the attached chain-of-custody.

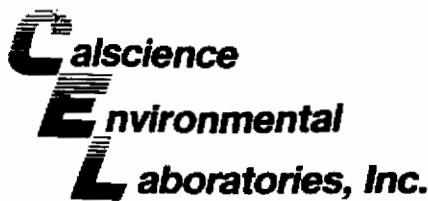
The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,


Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager


William H. Christensen
Quality Assurance Manager



ANALYTICAL REPORT

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: Filtered
Method: EPA 6010B / EPA 7470A

Project: Los Nietos Business Center

Page 1 of 3

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
MW6	00-06-1033-1	06/28/00	Aqueous	06/28/00	06/29/00	000628lcs2

Comment(s): Mercury was analyzed on 6/28/00 18:37:25 with batch 000628lcs1

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Molybdenum	ND	0.00500	1		mg/L
Barium	0.0379	0.0100	1		mg/L	Nickel	ND	0.00500	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	0.0181	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	0.00701	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	ND	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

MW3 00-06-1033-2 06/28/00 Aqueous 06/28/00 06/29/00 000628lcs2

Comment(s): Mercury was analyzed on 6/28/00 18:48:43 with batch 000628lcs1

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Molybdenum	ND	0.00500	1		mg/L
Barium	0.0516	0.0100	1		mg/L	Nickel	ND	0.00500	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	0.0262	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	0.00559	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	ND	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

MW1 00-06-1033-3 06/28/00 Aqueous 06/28/00 06/29/00 000628lcs2

Comment(s): Mercury was analyzed on 6/28/00 18:51:46 with batch 000628lcs1

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Mercury	ND	0.00050	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Molybdenum	ND	0.00500	1		mg/L
Barium	0.0672	0.0100	1		mg/L	Nickel	ND	0.00500	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Selenium	0.0161	0.0150	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Silver	ND	0.00500	1		mg/L
Chromium (Total)	0.00882	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Copper	ND	0.00500	1		mg/L	Zinc	0.0179	0.0100	1		mg/L
Lead	ND	0.0100	1		mg/L						

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

ANALYTICAL REPORT

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

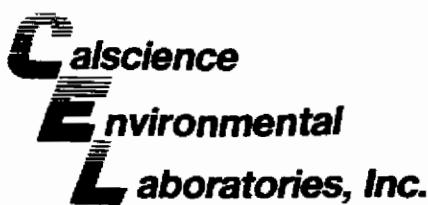
Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: Filtered
Method: EPA 6010B / EPA 7470A

Project: Los Nietos Business Center

Page 2 of 3

Client Sample Number:	Lab Sample Number:				Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:		
MW2	00-06-1033-4	06/28/00	Aqueous	06/28/00	06/29/00	000628 cs2					
Comment(s): Mercury was analyzed on 6/28/00 18:54:44 with batch 000628 cs1											
Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1	mg/L	Mercury	ND	0.00050	1	mg/L		
Arsenic	ND	0.0150	1	mg/L	Molybdenum	ND	0.00500	1	mg/L		
Barium	0.0492	0.0100	1	mg/L	Nickel	ND	0.00500	1	mg/L		
Beryllium	ND	0.00100	1	mg/L	Selenium	0.0176	0.0150	1	mg/L		
Cadmium	ND	0.00500	1	mg/L	Silver	ND	0.00500	1	mg/L		
Chromium (Total)	0.0744	0.0050	1	mg/L	Thallium	ND	0.0150	1	mg/L		
Cobalt	ND	0.00500	1	mg/L	Vanadium	ND	0.00500	1	mg/L		
Copper	ND	0.00500	1	mg/L	Zinc	0.0384	0.0100	1	mg/L		
Lead	ND	0.0100	1	mg/L							
MW4	00-06-1033-5	06/28/00	Aqueous	06/28/00	06/29/00	000628 cs2					
Comment(s): Mercury was analyzed on 6/28/00 18:57:42 with batch 000628 cs1											
Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1	mg/L	Mercury	ND	0.00050	1	mg/L		
Arsenic	ND	0.0150	1	mg/L	Molybdenum	ND	0.00500	1	mg/L		
Barium	0.0355	0.0100	1	mg/L	Nickel	0.0196	0.0050	1	mg/L		
Beryllium	ND	0.00100	1	mg/L	Selenium	ND	0.0150	1	mg/L		
Cadmium	0.0101	0.0050	1	mg/L	Silver	ND	0.00500	1	mg/L		
Chromium (Total)	0.137	0.005	1	mg/L	Thallium	ND	0.0150	1	mg/L		
Cobalt	ND	0.00500	1	mg/L	Vanadium	ND	0.00500	1	mg/L		
Copper	0.00782	0.00500	1	mg/L	Zinc	0.115	0.010	1	mg/L		
Lead	ND	0.0100	1	mg/L							
MW5	00-06-1033-6	06/28/00	Aqueous	06/28/00	06/29/00	000628 cs2					
Comment(s): Mercury was analyzed on 6/28/00 19:00:41 with batch 000628 cs1											
Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1	mg/L	Mercury	0.00184	0.00050	1	mg/L		
Arsenic	ND	0.0150	1	mg/L	Molybdenum	ND	0.00500	1	mg/L		
Barium	0.0491	0.0100	1	mg/L	Nickel	ND	0.00500	1	mg/L		
Beryllium	ND	0.00100	1	mg/L	Selenium	0.0322	0.0150	1	mg/L		
Cadmium	ND	0.00500	1	mg/L	Silver	ND	0.00500	1	mg/L		
Chromium (Total)	0.0291	0.0050	1	mg/L	Thallium	ND	0.0150	1	mg/L		
Cobalt	ND	0.00500	1	mg/L	Vanadium	ND	0.00500	1	mg/L		
Copper	ND	0.00500	1	mg/L	Zinc	0.0148	0.0100	1	mg/L		
Lead	ND	0.0100	1	mg/L							

RL - Reporting Limit DF - Dilution Factor Qual - Qualifiers



ANALYTICAL REPORT

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: Total Digestion
Method: EPA 6010B / EPA 7470A

Project: Los Nietos Business Center

Page 3 of 3

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
Method Blank	098-04-008-276	N/A	Aqueous	06/28/00	06/28/00	000628lcs1

Parameter	Result	RL	DF	Qual	Units
Mercury	ND	0.00050	1		mg/L

Method Blank	097-01-003-1-280	N/A	Aqueous	06/28/00	06/29/00	000628lcs2
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Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Antimony	ND	0.0150	1		mg/L	Molybdenum	ND	0.00500	1		mg/L
Arsenic	ND	0.0150	1		mg/L	Nickel	ND	0.00500	1		mg/L
Barium	ND	0.0100	1		mg/L	Selenium	ND	0.0150	1		mg/L
Beryllium	ND	0.00100	1		mg/L	Silver	ND	0.00500	1		mg/L
Cadmium	ND	0.00500	1		mg/L	Thallium	ND	0.0150	1		mg/L
Chromium (Total)	ND	0.00500	1		mg/L	Vanadium	ND	0.00500	1		mg/L
Cobalt	ND	0.00500	1		mg/L	Zinc	ND	0.0100	1		mg/L
Copper	ND	0.00500	1		mg/L	Lead	ND	0.0100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



ANALYTICAL REPORT

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: N/A
Method: EPA 7196A

Project: Los Nietos Business Center

Page 1 of 1

Client Sample Number:	Lab Sample Number:	Matrix:	Date Collected:	Date Prepared:	Date Analyzed:	QC Batch ID:
MW6	00-06-1033-1	Aqueous	06/28/00	N/A	06/29/00	000629CR1
<u>Parameter</u> <u>Result</u> <u>RL</u> <u>DF</u> <u>Qual</u> <u>Units</u>						
Chromium (VI)	ND	0.020	1		mg/L	
MW3 00-06-1033-2 Aqueous 06/28/00 N/A 06/29/00 000629CR1						
<u>Parameter</u> <u>Result</u> <u>RL</u> <u>DF</u> <u>Qual</u> <u>Units</u>						
Chromium (VI)	ND	0.020	1		mg/L	
MW1 00-06-1033-3 Aqueous 06/28/00 N/A 06/29/00 000629CR1						
<u>Parameter</u> <u>Result</u> <u>RL</u> <u>DF</u> <u>Qual</u> <u>Units</u>						
Chromium (VI)	ND	0.020	1		mg/L	
MW2 00-06-1033-4 Aqueous 06/28/00 N/A 06/29/00 000629CR1						
<u>Parameter</u> <u>Result</u> <u>RL</u> <u>DF</u> <u>Qual</u> <u>Units</u>						
Chromium (VI)	0.073	0.020	1		mg/L	
MW4 00-06-1033-5 Aqueous 06/28/00 N/A 06/29/00 000629CR1						
<u>Parameter</u> <u>Result</u> <u>RL</u> <u>DF</u> <u>Qual</u> <u>Units</u>						
Chromium (VI)	0.094	0.020	1		mg/L	
MW5 00-06-1033-6 Aqueous 06/28/00 N/A 06/29/00 000629CR1						
<u>Parameter</u> <u>Result</u> <u>RL</u> <u>DF</u> <u>Qual</u> <u>Units</u>						
Chromium (VI)	0.026	0.020	1		mg/L	
Method Blank 099-05-001-632 Aqueous N/A N/A 06/29/00 000629CR1						
<u>Parameter</u> <u>Result</u> <u>RL</u> <u>DF</u> <u>Qual</u> <u>Units</u>						
Chromium (VI)	ND	0.020	1		mg/L	

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

ANALYTICAL REPORT

Coast Environmental Services
 9401 Gateshead Drive
 Huntington Beach, CA 92646

Date Received: 06/28/00
 Work Order No: 00-06-1033
 Preparation: N/A
 Method: EPA 8260B

Project: Los Nietos Business Center

Page 1 of 7

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
MW8	00-06-1033-1	06/28/00	Aqueous	N/A	06/30/00	000630AW

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromoform	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromochloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	1.0	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	1.0	1		ug/L	Tetrachloroethene	45	1	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	5.5	1.0	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	1.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	ND	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	ND	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	ND	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	ND	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	Methyl-tert-Butyl Ether	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	112	86-118		Toluene-d8	107	88-110	
1,4-Bromofluorobenzene	96	86-115					

RL - Reporting Limit DF - Dilution Factor Qual - Qualifiers



ANALYTICAL REPORT

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: N/A
Method: EPA 8260B

Project: Los Nietos Business Center

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Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
MW3	00-06-1033-2	06/28/00	Aqueous	N/A	06/30/00	000630AW

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromochloromethane	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromoform	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	1.0	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	1.0	1		ug/L	Tetrachloroethene	2.2	1.0	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	5.8	1.0	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	1.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	2.7	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	0.52	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	3.2	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	ND	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	Methyl-tert-Butyl Ether	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	114	86-118		Toluene-d8	107	88-110	
1,4-Bromofluorobenzene	98	86-115					

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

ANALYTICAL REPORT

Coast Environmental Services
 9401 Gateshead Drive
 Huntington Beach, CA 92646

Date Received: 06/28/00
 Work Order No: 00-06-1033
 Preparation: N/A
 Method: EPA 8260B

Project: Los Nietos Business Center

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Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
MW1	00-06-1033-3	06/28/00	Aqueous	N/A	07/01/00	000630AW

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromoform	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromomethane	ND	1.0	1		ug/L	Ethybenzene	ND	1.0	1		ug/L
2-Butanone	ND	10	1		ug/L	2-Hexanone	ND	10	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	Naphthalene	ND	10	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Tetrachloroethylene	1.5	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichloroethylene	4.3	1.0	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,2-Dichloroethane	ND	0.50	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,1-Dichloroethene	4.9	1.0	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
c-1,2-Dichloroethene	ND	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L	Methyl-tert-Butyl Ether	ND	1.0	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	113	86-118		Toluene-d8	107	88-110	
1,4-Bromofluorobenzene	97	86-115					

RL - Reporting Limit DF - Dilution Factor Qual - Qualifiers

ANALYTICAL REPORT

Coast Environmental Services
 9401 Gateshead Drive
 Huntington Beach, CA 92646

Date Received: 06/28/00
 Work Order No: 00-06-1033
 Preparation: N/A
 Method: EPA 8260B

Project: Los Nietos Business Center

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Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
MW2	00-06-1033-4	06/28/00	Aqueous	N/A	07/01/00	000630AW

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromoform	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromoform	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	1.0	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	1.6	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	1.0	1		ug/L	Tetrachloroethene	14	1	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	13	1	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	1.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	7.1	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	17	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	3.1	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	2.9	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	Methyl-tert-Butyl Ether	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	115	86-118		Toluene-d8	106	88-110	
1,4-Bromofluorobenzene	97	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

ANALYTICAL REPORT

Coast Environmental Services
 9401 Gateshead Drive
 Huntington Beach, CA 92646

Date Received: 06/28/00
 Work Order No: 00-06-1033
 Preparation: N/A
 Method: EPA 8260B

Project: Los Nietos Business Center

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Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
MW4	00-06-1033-5	06/28/00	Aqueous	N/A	07/01/00	000630AW

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromoform	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromochloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	1.0	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	0.56	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	4.9	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	1.0	1		ug/L	Tetrachloroethene	5.3	1.0	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	13	1	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	1.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	5.5	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	8.9	0.5	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	1.4	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	1.5	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	Methyl-tert-Butyl Ether	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	117	86-118		Toluene-d8	106	88-110	
1,4-Bromofluorobenzene	96	86-115					

RL - Reporting Limit DF - Dilution Factor Qual - Qualifiers



ANALYTICAL REPORT

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: N/A
Method: EPA 8260B

Project: Los Nietos Business Center

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Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
MW5	00-06-1033-8	06/28/00	Aqueous	N/A	07/01/00	000630AW

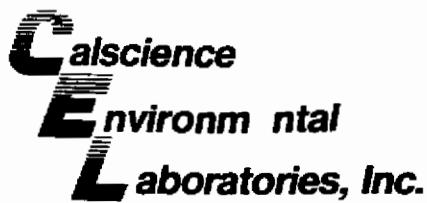
Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromo-chloromethane	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromo-dichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromoform	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	1.0	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	1.0	1		ug/L	Tetrachloroethene	97	1	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromo-chloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	6.0	1.0	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	1.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	ND	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	ND	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	3.0	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	ND	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	Methyl-tert-Butyl Ether	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	115	86-118		Toluene-d8	106	88-110	
1,4-Bromofluorobenzene	95	86-115					

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers



ANALYTICAL REPORT

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: N/A
Method: EPA 8260B

Project: Los Nietos Business Center

Page 7 of 7

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
Method Blank	099-10-006-475	N/A	Aqueous	N/A	06/30/00	000630AW

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	10	1		ug/L	1,3-Dichloropropane	ND	1.0	1		ug/L
Benzene	ND	0.50	1		ug/L	2,2-Dichloropropane	ND	1.0	1		ug/L
Bromobenzene	ND	1.0	1		ug/L	1,1-Dichloropropene	ND	1.0	1		ug/L
Bromoform	ND	1.0	1		ug/L	c-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromodichloromethane	ND	1.0	1		ug/L	t-1,3-Dichloropropene	ND	0.50	1		ug/L
Bromoform	ND	1.0	1		ug/L	Ethylbenzene	ND	1.0	1		ug/L
Bromomethane	ND	1.0	1		ug/L	2-Hexanone	ND	10	1		ug/L
2-Butanone	ND	10	1		ug/L	Isopropylbenzene	ND	1.0	1		ug/L
n-Butylbenzene	ND	1.0	1		ug/L	p-Isopropyltoluene	ND	1.0	1		ug/L
sec-Butylbenzene	ND	1.0	1		ug/L	Methylene Chloride	ND	10	1		ug/L
tert-Butylbenzene	ND	1.0	1		ug/L	4-Methyl-2-Pentanone	ND	10	1		ug/L
Carbon Disulfide	ND	10	1		ug/L	Naphthalene	ND	10	1		ug/L
Carbon Tetrachloride	ND	0.50	1		ug/L	n-Propylbenzene	ND	1.0	1		ug/L
Chlorobenzene	ND	1.0	1		ug/L	Styrene	ND	1.0	1		ug/L
Chloroethane	ND	1.0	1		ug/L	1,1,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloroform	ND	1.0	1		ug/L	1,1,2,2-Tetrachloroethane	ND	1.0	1		ug/L
Chloromethane	ND	1.0	1		ug/L	Tetrachloroethene	ND	1.0	1		ug/L
2-Chlorotoluene	ND	1.0	1		ug/L	Toluene	ND	1.0	1		ug/L
4-Chlorotoluene	ND	1.0	1		ug/L	1,2,3-Trichlorobenzene	ND	1.0	1		ug/L
Dibromochloromethane	ND	1.0	1		ug/L	1,2,4-Trichlorobenzene	ND	1.0	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	5.0	1		ug/L	1,1,1-Trichloroethane	ND	1.0	1		ug/L
1,2-Dibromoethane	ND	1.0	1		ug/L	1,1,2-Trichloroethane	ND	1.0	1		ug/L
Dibromomethane	ND	1.0	1		ug/L	Trichloroethene	ND	1.0	1		ug/L
1,2-Dichlorobenzene	ND	1.0	1		ug/L	Trichlorofluoromethane	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	1.0	1		ug/L	1,2,3-Trichloropropane	ND	1.0	1		ug/L
1,4-Dichlorobenzene	ND	1.0	1		ug/L	1,2,4-Trimethylbenzene	ND	1.0	1		ug/L
Dichlorodifluoromethane	ND	1.0	1		ug/L	1,3,5-Trimethylbenzene	ND	1.0	1		ug/L
1,1-Dichloroethane	ND	1.0	1		ug/L	Vinyl Acetate	ND	10	1		ug/L
1,2-Dichloroethane	ND	0.50	1		ug/L	Vinyl Chloride	ND	0.50	1		ug/L
1,1-Dichloroethene	ND	1.0	1		ug/L	p/m-Xylene	ND	1.0	1		ug/L
c-1,2-Dichloroethene	ND	1.0	1		ug/L	o-Xylene	ND	1.0	1		ug/L
t-1,2-Dichloroethene	ND	1.0	1		ug/L	Methyl-tert-Butyl Ether	ND	1.0	1		ug/L
1,2-Dichloropropane	ND	1.0	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	107	86-118		Toluene-d8	106	88-110	
1,4-Bromofluorobenzene	98	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Spike/Spike Duplicate

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: N/A
Method: EPA 7196A

Project: Los Nietos Business Center

Spiked Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW6	Aqueous	8463	N/A	06/29/00	000629CR1

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chromium (VI)	98	97	70-130	0	0-25	

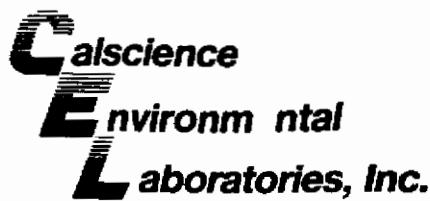
Coast Environmental Services
 9401 Gateshead Drive
 Huntington Beach, CA 92646

Date Received: 06/28/00
 Work Order No: 00-06-1033
 Preparation: Total Digestion
 Method: EPA 6010B

Project: Los Nietos Business Center

Spiked Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
00-06-0991-1	Aqueous	ICP 3300	06/28/00	06/29/00	062800ms2

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	105	107	80-120	2	0-20	
Arsenic	96	98	80-120	1	0-20	
Barium	96	97	80-120	1	0-20	
Beryllium	96	96	80-120	0	0-20	
Cadmium	96	97	80-120	1	0-20	
Chromium (Total)	94	95	80-120	1	0-20	
Cobalt	97	98	80-120	1	0-20	
Copper	101	104	80-120	3	0-20	
Lead	93	94	80-120	1	0-20	
Molybdenum	96	97	80-120	1	0-20	
Nickel	95	96	80-120	1	0-20	
Selenium	97	99	80-120	2	0-20	
Silver	71	80	80-120	13	0-20	3
Thallium	98	99	80-120	1	0-20	
Vanadium	101	102	80-120	1	0-20	
Zinc	98	102	80-120	4	0-20	



Quality Control - Spike/Spike Duplicate

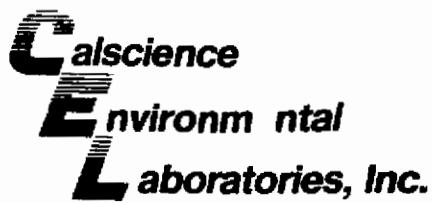
Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: Total Digestion
Method: EPA 7470A

Project: Los Nietos Business Center

Spiked Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
00-06-0991-2	Aqueous	Mercury	06/28/00	06/28/00	062800ms1

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	92	93	71-134	0	0-14	



Quality Contr I - Spike/Spike Duplicate

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: N/A
Method: EPA 8260B

Project: Los Nietos Business Center

Spiked Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW3	Aqueous	GC/MS O	N/A	06/30/00	00061033-2

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	108	109	72-127	1	0-25	
Carbon Tetrachloride	110	109	70-130	0	0-25	
Chlorobenzene	104	104	72-131	0	0-25	
1,2-Dichlorobenzene	107	105	70-130	2	0-25	
1,1-Dichloroethene	110	114	69-127	3	0-25	
Toluene	109	110	75-124	0	0-25	
Trichloroethene	106	108	60-137	2	0-25	
Vinyl Chloride	106	117	70-130	10	0-25	
Methyl-tert-Butyl Ether	112	115	80-120	2	0-25	



Quality Control - Laboratory Control Sample

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: N/A
Method: EPA 7196A

Project: Los Nietos Business Center

LCS Sample Number	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-05-001-632	Aqueous	8463	06/28/00	000629CR1	

Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Chromium (VI)	0.500	0.499	100	80-120	



Quality Control - Laboratory Control Sample

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation:
Method:

Total Digestion
EPA 6010B

Project: Los Nietos Business Center

LCS Sample Number	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
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097-01-003-1,280	Aqueous	ICP 3300	06/29/00	000628-1	000628lcs2
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Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Antimony	1.00	0.997	100	80-120	
Arsenic	1.00	0.931	93	80-120	
Barium	1.00	1.08	108	80-120	
Beryllium	1.00	1.02	102	80-120	
Cadmium	1.00	1.08	108	80-120	
Chromium (Total)	1.00	1.02	102	80-120	
Cobalt	1.00	1.09	109	80-120	
Copper	1.00	1.04	104	80-120	
Lead	1.00	1.06	106	80-120	
Molybdenum	1.00	1.03	103	80-120	
Nickel	1.00	1.06	106	80-120	
Selenium	1.00	1.02	102	80-120	
Silver	0.500	0.507	101	80-120	
Thallium	1.00	1.13	113	80-120	
Vanadium	1.00	1.05	105	80-120	
Zinc	1.00	1.06	106	80-120	



Quality Control - Laboratory Control Sample

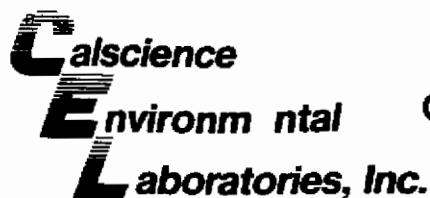
Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: Total Digestion
Method: EPA 7470A

Project: Los Nietos Business Center

LCS Sample Number	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-04-008-276	Aqueous	Mercury	06/28/00	0006281	000628lcs1

Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Mercury	0.0100	0.00994	99	90-122	



Quality Control - Laboratory Control Sample

Coast Environmental Services
9401 Gateshead Drive
Huntington Beach, CA 92646

Date Received: 06/28/00
Work Order No: 00-06-1033
Preparation: N/A
Method: EPA 8260B

Project: Los Nietos Business Center

LCS Sample Number	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
098-10-006-475	Aqueous	GC/MS-O	06/30/00	30JUN012	000630AW

Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Benzene	50	53.0	106	72-127	
Carbon Tetrachloride	50	51.0	102	70-130	
Chlorobenzene	50	51.3	103	72-131	
1,2-Dichlorobenzene	50	51.9	104	70-130	
1,1-Dichloroethene	50	52.8	106	69-127	
Toluene	50	52.9	106	75-124	
Trichloroethene	50	53.4	107	60-137	
Vinyl Chloride	50	53.6	107	79-118	
Methyl-tert-Butyl Ether	50	52.1	104	80-120	



GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 00-06-1033

<u>Qualifier</u>	<u>Definition</u>
3	Spike or Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
ND	Not detected at indicated reporting limit.

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 6/20/00
Page 1 of 1

LABORATORY CLIENT: Coast Environmental Services
ADDRESS: 9401 Gateshead Drive
CITY Huntington Beach STATE CA ZIP 92646
TEL: (714) 962-4675 FAX: (714) 378-1195 E-MAIL:

TURNAROUND TIME (RUSH SURCHARGES MAY APPLY)

SAME DAY 24 HR 48 HR 72 HRS 5 DAYS 10 DAYS

SPECIAL INSTRUCTIONS

- Filter and Preserve T2Z metal Samples
 - Analyze Cr⁶⁺ Samples within 24 hours

CLIENT PROJECT NAME / NUMBER: <i>Los Nietos Business Center</i>	P.O. NO.:
PROJECT CONTACT: <i>Kevin Sheridan</i>	QUOTE NO.:
SAMPLE(S): (SIGNATURE) <i>Kevin Sheridan</i>	LAB USE ONLY <i>06-1033</i>

BEQUESTED ANALYSES

TPH (g) (d) (0)							
BTEX / MTBE (8021B)							
HALOCARBONS (8021B)							
VOCs (8260B)	X	X					
SVOCs (8270C)	X	X					
PEST / PCBs (8081A)							
EDB / DBCP (504.1 or 8011)							
CAC, T22 METALS (6010A)	X	X					
ICP/MS METALS (6020)	X	X					
PNAs (8310)							
VOCs (T0-14)							
CH ₄ / TGNMO (25.1)							
FIXED GASES (25.1 or D1946)							
Hexane/acetone	X	X	X	X	X	X	X

Relinquished by: (Signature)

Received by: (Signature)

Date: 6/20/00 Time: 3:45

Distinguished by: (Signature)

Received by: (Signature)

Date: _____ Time: _____

Relinquished by: (Signature)

Received for Laboratory by: (Signature)

Date:	Time:
6/28/02	3:45 AM